Case Study
California Fuel Cell Partnership

APPLICATION:

The CaFCP is a public-private, voluntary effort to advance and apply hydrogen fuel cell technologies towards practical, affordable environmental transportation solutions.

THE PARTNERSHIP:

Started in April 1999 — includes auto manufacturers (DaimlerChrysler, Ford, General Motors, Honda, Hyundai, Nissan, Toyota and Volkswagen); energy providers (Air Products, BP, ChevronTexaco, ExxonMobil, Methanex, Pacific Gas and Electric, Praxair, Proton Energy Systems, Shell Hydrogen, Stuart Energy, and Ztek); technology companies (Ballard Power Systems and UTC Fuel Cells); government agencies (California Air Resources Board, California Energy Commission, South Coast AQMD, US Department of Energy, US Department of Transportation and US Environmental Protection Agency); and bus transit agencies (AC Transit, Santa Clara Valley Transportation Authority, and SunLine Transit Agency).

CHALLENGE:

To advance prospects for fuel cell commercialization in transportation technologies (cars and buses) by:

- demonstrating fuel cell-powered electric vehicles under real day-to-day driving conditions;
- testing alternative fuels and the viability of an alternative fuel infrastructure technology;
- addressing potential barriers to commercialization, including cost, regulatory, and performance issues; and
- increasing public awareness of fuel cell electric vehicles.

COMPANY OBJECTIVES:

CaFCP will continue its joint activities through 2007. The objectives for this next phase will focus on members' independent fleet programs involving vehicles and hydrogen fueling stations, and an increased level of activity toward facilitating the path to commercialization. These objectives include:

1. Place FCVs in fleet demonstration projects
2. Develop hydrogen fueling demonstrations
3. Prepare local communities for commercialization
4. Raise public awareness, education and support for FCVs

RELEVANT FACTS:

The Partnership is directed by a Steering Team composed of one executive member from each of the full partners. An Executive Director leads the Partnership programs through a Working Group, which a team is comprised of partner representatives focusing on vehicle operations, fuel infrastructure, bus programs, safety, joint studies and communications.

ACCOMPLISHMENTS:

The accomplishments to date create a stable foundation for future undertakings. These include:

- Member placement of nearly 60 fuel cell vehicles on California roads
- Transit agency member demonstration of 3 fuel cell buses (FCBs).
- Energy member installation and operation of two hydrogen-fueling stations and one methanol fueling station in California.
- Member construction and operation of a 55,000 square-foot testing and demonstration facility in West Sacramento, California.
- Joint commissioning and completion of two studies: onboard fuel scenarios and hydrogen vehicle facilities studies;
- Joint development of an emergency response guide for fuel cell vehicles.
- Direct outreach to over 500,000 people, while offering over 10,000 people test-drives in a fuel cell vehicle.

CONCLUSIONS:

CaFCP has proven its value as a forum where the challenges of fuel cell vehicle commercialization are tackled by a diverse group of industry and government representatives with one common goal – to maximize the potential for fuel cell vehicles and fueling technology to help California and the world achieve a cleaner, more sustainable future.